

FIG. 1

Type	Origin	PB1: Positions	52	54	105	175	208	298	364	383	384	396	431	464
H7N7	Bratislava'82 chicken	K	K	N	D	K	L	E	P	-	Y	Y	D	D
H7N7	Rostock'34 chicken	K	K	N	D	K	L	E	S	L	-	Y	Y	N
H1N1	WSN33 human	R	R	T	N	R	D	-	D	S	-	D	D	D
H1N1	Wisconsin'88 human	R	K	N	E	K	-	L	D	S	-	D	D	D
H2N2	Singapore'57 human	K	K	N	D	K	-	L	E	S	-	D	D	D
H2N2	Ann Arbor'60 human	K	K	N	D	K	-	L	E	S	-	D	D	D
H3N2	HongKong'68 human	K	K	N	D	K	-	L	E	S	-	D	D	D
H3N2	Shiga'87 human	K	K	N	D	K	-	L	E	S	-	D	D	D
H3N2	Hongkong'82 swine	K	K	N	D	K	-	L	E	S	-	D	D	D
H3N2	Katakyushu'83 human	R	K	N	D	K	-	L	E	S	-	D	D	D
H3N8	Tennessee'66 equine	K	K	N	D	K	-	L	E	S	-	D	D	D
H4N2	Minnesota'80 turkey	K	K	N	D	K	-	L	E	S	-	D	D	D
H4N2	Ontario'89 swine	K	K	N	D	K	-	L	E	S	-	D	D	D
H5N1	Hongkong'97 human	K	R	N	D	K	-	L	E	S	-	D	D	D
H6N1	Taiwan'99 chicken	K	K	N	D	K	-	L	E	S	-	D	D	D
H7N7	London'73 equine	K	K	N	D	K	-	L	E	S	-	D	D	D
H8N2	Pakistan'99 chicken	K	K	N	D	K	-	L	E	S	-	D	D	D

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FIG 1 (continued)

Type	Origin	PB1: Positions	473	576	584	628	633	636	644	645	654	741
H7N7	Bratislava'82 chicken	V	L	R	M	S	E	A	V	V	S	A
H7N7	Rostock'34 chicken	V	L	R	L	S	E	D	V	V	S	A
H1N1	WS/N33 human	L	—	H	R	N	S	E	—	—	N	T
H1N1	Wisconsin'88 human	L	—	R	L	S	E	E	>	>	T	A
H2N2	Singapore'57 human	>	>	R	R	S	E	S	>	>	S	A
H2N2	Ann Arbor'60 human	>	>	R	R	S	E	S	>	>	S	A
H3N2	Hongkong'68 human	>	>	Q	Q	S	S	S	>	>	S	S
H3N2	Shiga'71 human	>	>	L	L	S	S	S	>	>	S	S
H3N2	Hongkong'82 swine	>	>	R	R	S	E	S	>	>	S	A
H3N2	Katakyushu'93 human	>	>	Q	Q	S	E	S	>	>	S	A
H3N8	Tennessee'96 equine	>	>	R	R	S	E	S	>	>	S	A
H4N2	Minnesota'80 turkey	>	>	R	R	S	E	S	>	>	N	A
H4N2	Ontario'99 swine	>	>	R	R	S	E	S	>	>	S	A
H5N1	Hongkong'97 human	>	>	R	R	S	E	S	>	>	S	A
H6N1	Taiwan'99 chicken	>	>	R	R	S	E	S	>	>	S	A
H7N7	London'73 equine	>	>	R	R	S	E	S	>	>	S	A
H9N2	Pakistan'99 chicken	>	>	L	L	S	E	S	>	>	S	A

Fig.2

Fig.2	plasmid	constitution										other segments	orig.titer	293T	MDCK
		Y1 / C1	x3'	C2	S L P I	P	x5'	H	L V M A	V2	T A				
	map PB1											WSN	7x10 ⁸ /ml	11	2
	WSN-PB1		WSN									WSN	1x10 ⁸ /ml	22	38
	pHL3102	WSN			FPV							WSN	2x10 ⁷ /ml	10	13
	pHL3103	FPV		WSN								WSN	1x10 ⁵ /ml	14	25
	pHL3130	WSN		FPV								WSN	2x10 ⁶ /ml	18	25
	pHL3131	WSN	FPV		WSN							WSN	3x10 ⁵ /ml	17	28
	pHL3115		FPV									FPV	3x10 ⁸ /ml	48	100
	pHL1844			FPV								FPV			

Fig.3

plasmid	constitution						other segments	orig.titer	CAT assay	
	<u>v1</u> / <u>c1</u>	x ³	<u>c2</u>	S ^L P _I	(P)	x ⁵ R	H	L V MA	<u>v2</u> A	293T MDCK
map PB1										
WSN-PB1			WSN							
pHL3204				FPV						
pHL3203					FPV					
pHL3246			FPV							
pHL3247			FPV							
pHL3258										
pHL3259				FPV						
pHL3268					FPV					
pHL1844			FPV							

Fig. 4

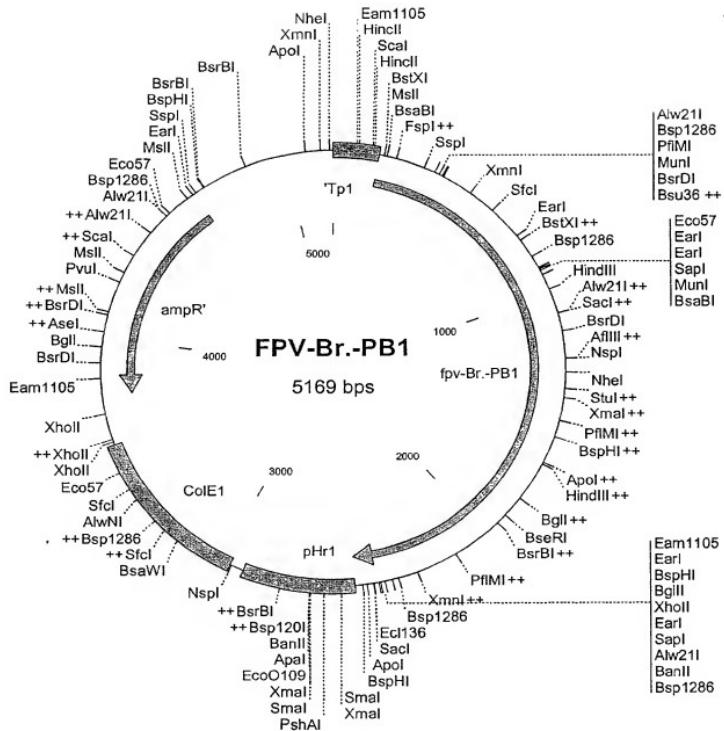


Fig. 5

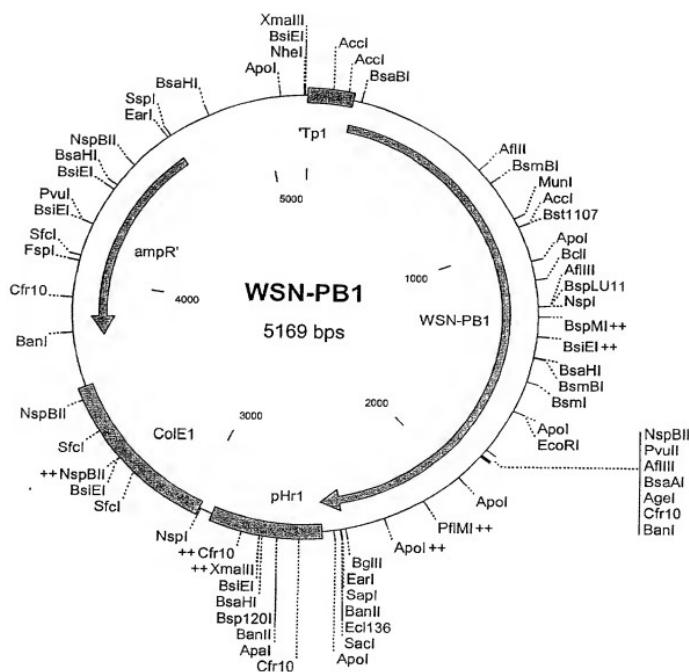


Fig. 6

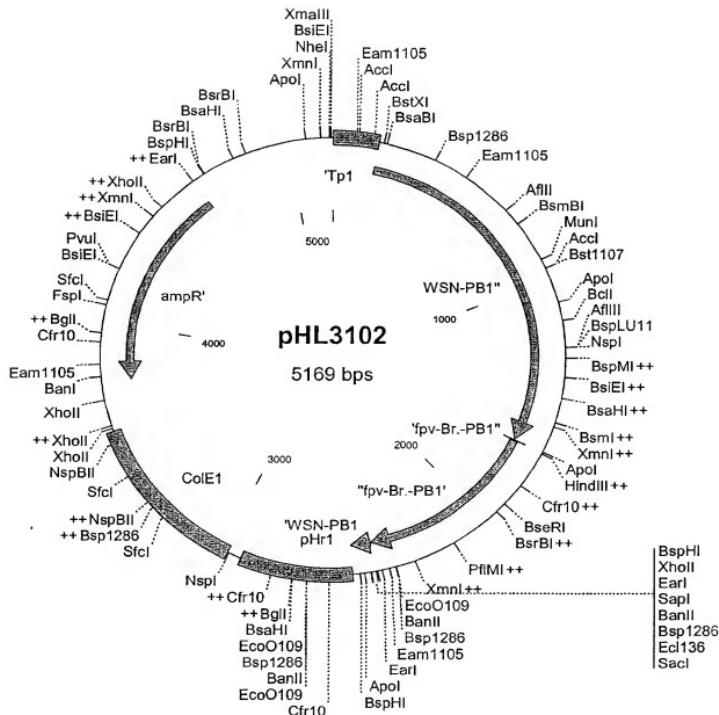


Fig. 7

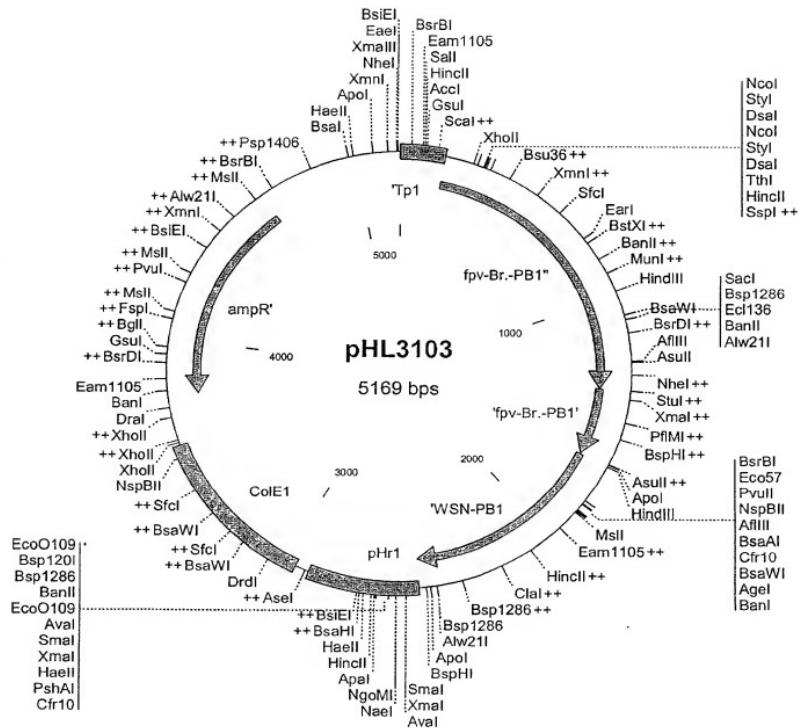


Fig. 8

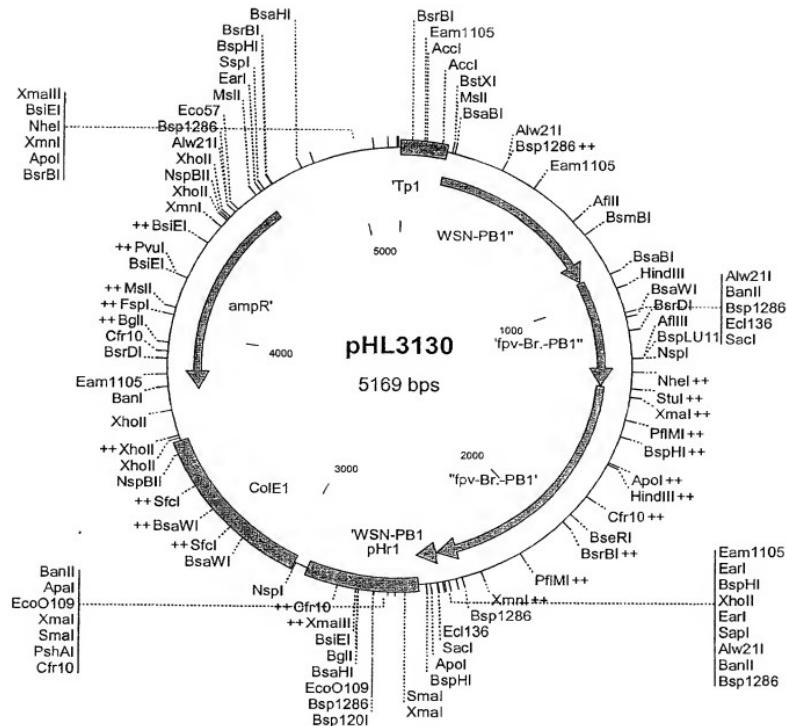
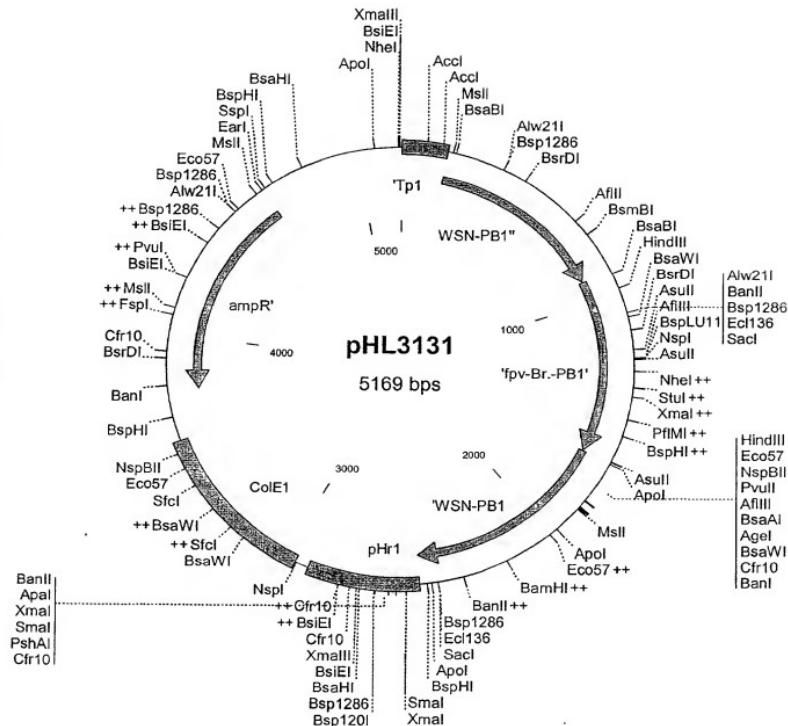


Fig. 9



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Fig. 10

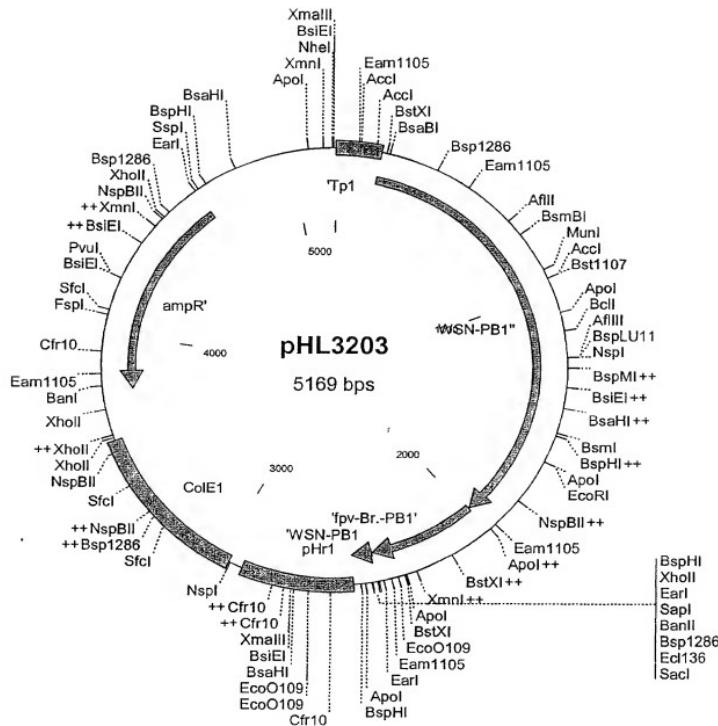


Fig. 11

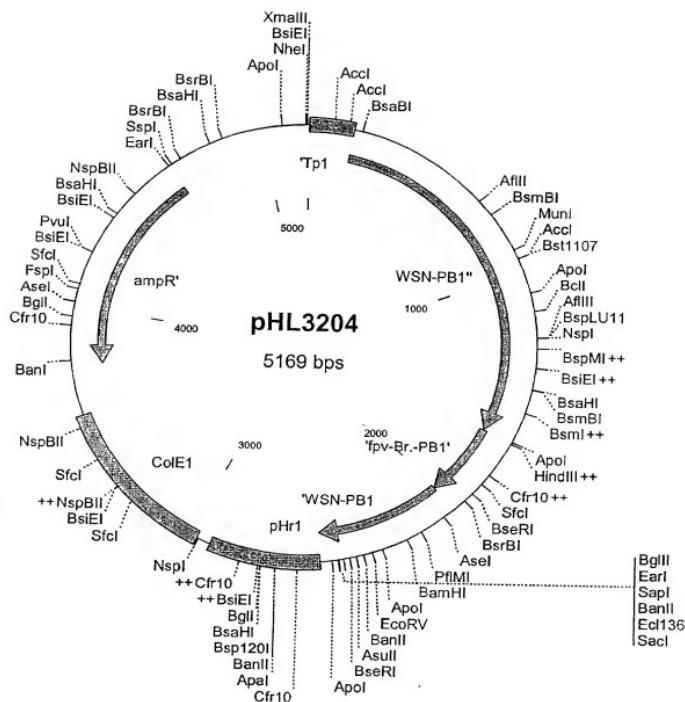


Fig. 12

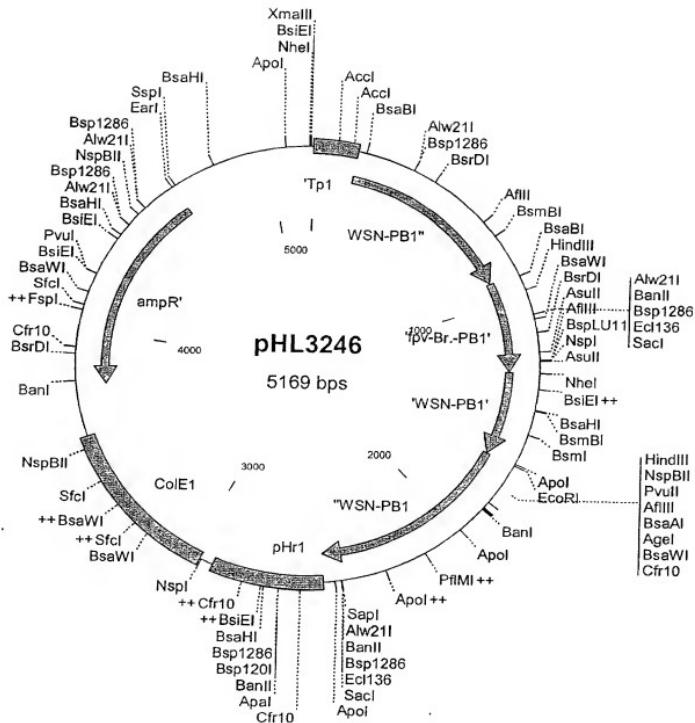


Fig. 13

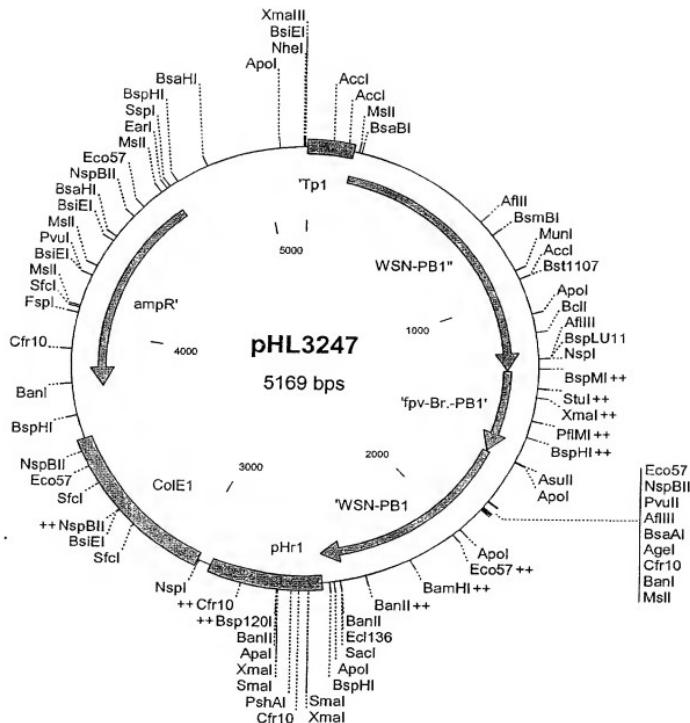
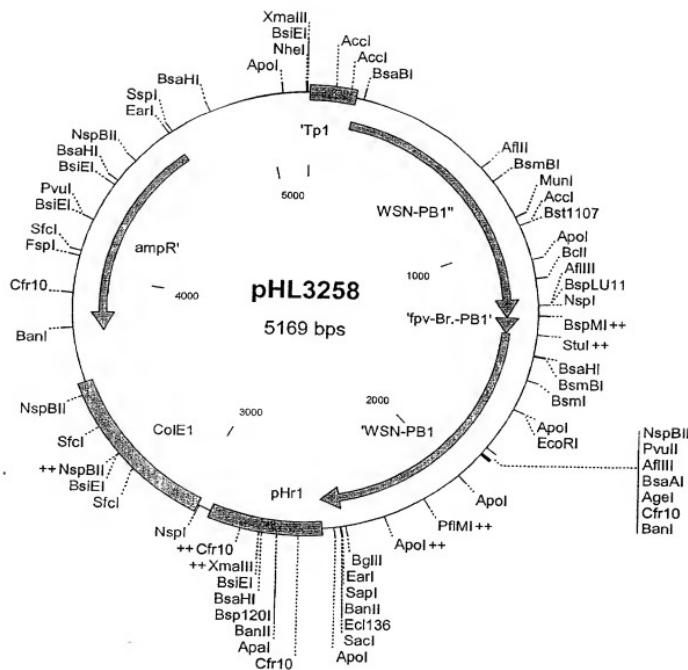


Fig. 14



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Fig. 15

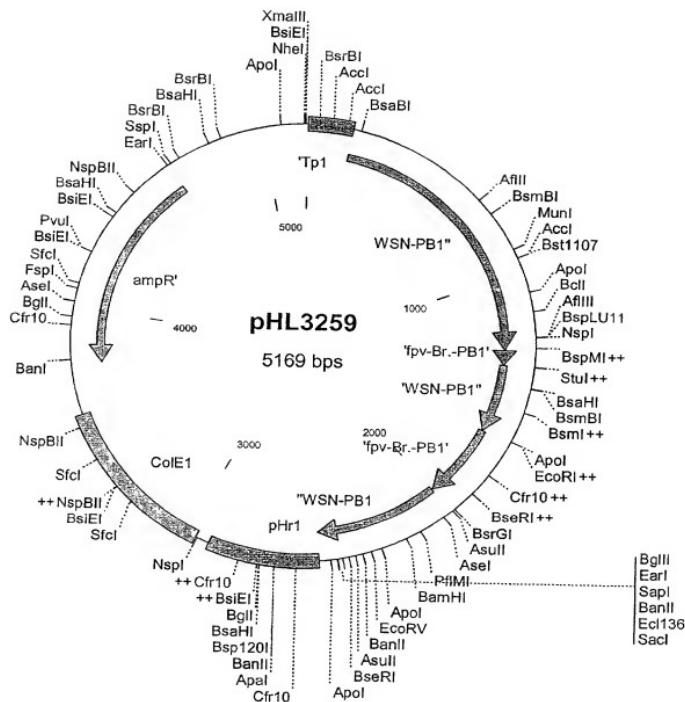


Fig. 16

